

Title (en)

BLOCK COPOLYMER-CONTAINING INORGANIC PARTICLE DISPERSION FOR COSMETICS

Title (de)

BLOCKCOPOLYMERHALTIGE ANORGANISCHE PARTIKELDISPERSION FÜR KOSMETIKA

Title (fr)

DISPERSION DE PARTICULES INORGANIQUES CONTENANT UN COPOLYMÈRE SÉQUENCÉ POUR PRODUITS COSMÉTIQUES

Publication

**EP 3811924 A4 20220309 (EN)**

Application

**EP 19810088 A 20190514**

Priority

- JP 2018102631 A 20180529
- JP 2019019177 W 20190514

Abstract (en)

[origin: EP3811924A1] The invention provides an inorganic particle dispersion comprising a novel block copolymer capable of improving dispersibility of inorganic particles, particularly an inorganic particle dispersion for a cosmetic. The inorganic particle dispersion, particularly the inorganic particle dispersion for a cosmetic of the present invention comprises a dispersion medium, an inorganic particle dispersed in the dispersion medium, and a block copolymer comprising a hydrophobic segment and a hydrophilic segment, wherein the hydrophobic segment comprises a monomer unit composed of at least one monomer selected from the following Formula 1 and Formula 2, wherein at least a portion of the hydrophilic segment is adsorbed on the inorganic particle, and the hydrophobic segment is oriented outwardly relative to the inorganic particle: where  $R^{<sup>1</sup>}$  is hydrogen or a methyl group,  $R^{<sup>2</sup>}$  is hydrogen or fluorine, m is an integer of 0 to 6, and n is an integer of 1 to 15, where  $R^{<sup>1</sup>}$  is hydrogen or a methyl group,  $R^{<sup>3</sup>}$  and  $R^{<sup>4</sup>}$  are each independently an alkyl group having 1 to 6 carbon atoms, m is an integer of 1 to 6, and p is an integer of 5 to 70.

IPC 8 full level

**A61K 8/81** (2006.01); **A61K 8/04** (2006.01); **A61K 8/19** (2006.01); **A61K 8/25** (2006.01); **A61K 8/27** (2006.01); **A61K 8/29** (2006.01); **A61K 8/90** (2006.01); **A61Q 17/04** (2006.01)

CPC (source: EP US)

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Citation (search report)

- [X] WO 2009017179 A1 20090205 - FUJIFILM CORP [JP], et al
- [Y] EP 3178468 A1 20170614 - SHISEIDO CO LTD [JP]
- [Y] DATABASE WPI Week 200627, Derwent World Patents Index; AN 2006-256704, XP002805415
- See references of WO 2019230378A1

Designated contracting state (EPC)

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**EP 19810088 A 20190514**; CN 201980035819 A 20190514; JP 2019019177 W 20190514; JP 2020521835 A 20190514; TW 108118321 A 20190528; US 201917054310 A 20190514